

### **REMARKS**

Reconsideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

A. Status of the Claims and Explanation of Amendments

Claims 1,3 and 5-8 were pending. By this paper, claims 1, 6, 7 and 8 are amended.

The Office Action indicated that the “adapted to” language within claims 1, 6, 7 and 8 broadened their scope. [9/5/08 Office Action at p.2]. Although Applicant respectfully disagrees, in order to expedite prosecution, claims 1, 6, 7 and 8 have been amended to remove the language as suggested. *Id.* at p.3. Claim 1 has also been amended to recite, *inter alia*, “wherein said correction unit corrects the pixel defect by interpolating the defective pixel by using the pixel data of upper, lower, left and right pixels having the same color filter.” Support for this amendment may be found throughout Applicant’s specification as originally filed, including for example, on page 13. Claims 6, 7 and 8 have been similarly amended.

As to the merits, the Office Action rejected claims 1 and 6-8 under 35 U.S.C. § 102(e) as allegedly being anticipated by Japanese Patent Laid Open 2000-199321 (“Kubota”). Claims 3 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kubota in view of U.S. Patent No. 6,970,193 Kidono et al. (“Kidono”).

B. Claims 1,3 and 5-8 are Patentably Distinct from Kubota and Kidono

The rejections of claims 1,3 and 5-8 are respectfully traversed. As explained more fully below, the requirements for such rejections are not met. In particular, Oda and

Kidono do not teach, disclose or suggest “wherein each pixel defect within the first pixel defect information corresponds to a pixel defect within the second pixel defect information,” as recited in Applicant’s claim 1.

Applicant’s claim 1 as amended recites:

An image sensing apparatus having an image sensing device, comprising:

a driving unit that drives the image sensing device by a plurality of driving schemes;

a pixel defect information storage unit that stores pixel defect information as information about a pixel defect in the image sensing device in correspondence with each driving scheme; and

a correction unit that corrects the pixel defect by referring to the pixel defect information in said pixel defect information storage unit in accordance with the driving scheme with which said driving unit drives the image sensing device,

wherein said correction unit corrects the pixel defect by interpolating the defective pixel by using the pixel data of upper, lower, left and right pixels having the same color filter,

wherein said correction unit, based on first pixel defect information of a first driving scheme from the plurality of driving schemes, generates second pixel defect information for the second driving scheme, and stores the second pixel defect information in said pixel defect information storage unit,

wherein each pixel defect within the second pixel defect information corresponds to a pixel defect within the first pixel defect information, and

wherein said second driving scheme from the plurality of driving schemes drives to read a second number of pixels of signal from the image sensing device, where the second number is smaller than a

first number of pixel of signal read from the image  
sensing device by the first driving scheme.

Kubota is directed towards an apparatus for correcting a defective pixel on a horizontal line of image data. Kubota discloses two modes in which image data is read. The first of these is an “all pixel reading mode,” and the second is a “high rate reading mode.” [Kubota at pp.21,23]. In either mode, while image information is collected, a pixel position measuring unit makes known the pixel position from which an image signal is obtained. A defect pixel detecting unit compares this position information against previously determined defective pixel positions. If there is a match, a defect pixel correction unit “replaces an image signal of the defect pixel . . . with a value which is linearly interpolated by using an image signal of the two same color factor adjacent pixels in a horizontal direction.” *Id.* at p.22,25. Thus as Kubota only teaches interpolation in the horizontal axis, Applicants believe that claim 1, which recites that the “correction unit corrects the pixel defect by interpolating the defective pixel by using the pixel data of upper, lower, left and right pixels having the same color filter,” is patentably distinct.

Kidono is directed toward an image correction mechanism. Specifically, Kidono’s purpose is correcting “smears” that may occur in an image pickup device when intense light is incident thereupon. [Kidono col.1 lns.16-20]. In other words, Kidono is meant to eliminate smears of image signals in a pixel region by using a smear eliminating reference signal. *Id.* at col.4 lns.26-31. Therefore, as Kidono is not directed to defective pixel correction, Applicant believes that it also does not teach that a “correction unit corrects the pixel defect by interpolating the defective pixel by using the pixel data of upper, lower, left and right pixels having the same color filter.”

Accordingly, as Applicant cannot find “wherein said correction unit corrects the pixel defect by interpolating the defective pixel by using the pixel data of upper, lower, left and right pixels having the same color filter,” of claim 1 in Kubota or Kidono, at least independent claims 1 and its dependent claims 3 and 5 are respectfully asserted to be in condition for allowance. For at least similar reasons, independent claims 6-8 also are respectfully asserted to be in condition for allowance.

### **CONCLUSION**

For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is requested. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 13-4500, ORDER NO. 1232-5277.

Respectfully submitted,  
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By: \_\_\_\_\_

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